GOVERNMENT OF INDIA
WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION
LOK SABHA

UNSTARRED QUESTION NO:3850
ANSWERED ON:08.12.2016
Assessment of Ground Water Resources
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Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION be pleased to state:

(a) whether the Central Ground Water Board (CGWB) has made any assessment of the ground water resources in the country including Madhya Pradesh and Gujarat, if so, the details thereof, State-wise;
(b) whether the Government has formulated any special programme for the said States after the assessment, if so, the details thereof; and
(c) the steps taken/to be taken by the Government to fulfil the future ground water need in these States?

Answer

(a) Central Ground Water Board (CGWB) carries out periodic assessment of replenishable ground water resources in the Country jointly with State Governments including Madhya Pradesh and Gujarat. State-wise details are given at Annexure.
(b) & (c) The mechanisms put in place and the measures taken by the Ministry of Water Resources, RD & GR to control depletion of ground water level and outcomes thereof are given below :
â€¢ The National Water Policy (2012) formulated by Ministry of Water Resources, RD & GR, inter-alia, advocates conservation, promotion and protection of water and highlights the need for augmenting the availability of water through rain water harvesting, direct use of rainfall and other management measures. The National Water Policy (2012) has been forwarded to all State Governments/ UTs and concerned Ministries/ Departments of Central Government for adoption.
â€¢ CGWB has also prepared a conceptual document entitled "Master Plan for Artificial Recharge to Ground Water in India" during 2013, involving ground water scientists/experts. The Master Plan envisages construction of 1.11 crore rain water harvesting and artificial recharge structures in the
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Country at an estimated cost of Rs.79,178 crores to harness 85 BCM (Billion Cubic Metre) of water. The augmented ground water resources will enhance the availability of water for drinking, domestic, industrial and irrigation purpose. The Master Plan has been circulated to all State Governments for implementation.
â€¢ This Ministry works in close coordination with Ministry of Rural Development for groundwater recharge. The details of completed public works related to Natural Resources Management by the MoRD for the States of Gujarat and Madhya Pradesh are as under:
â€¢ The Ministry of Drinking Water & Sanitation has suggested all States to adopt water conservation measures like roof top rainwater harvesting, erecting sustainability structures for water conservation etc. For creating such sustainability structures, 10 % of National Rural Drinking Water Programme (NRDWP) funds are provided to the States.
â€¢ Department of Land Resources is currently implementing 8214 watershed development projects in 28 States covering an area of about 39.07 million ha. under the Watershed Development Component (WDC) of the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) principally for development of rainfed portions of net cultivated area and culturable wastelands. The major activities taken up under the WDC-PMKSY, inter-alia, include ridge area treatment, drainage line afforestation, soil and moisture conservation, rain water harvesting, horticulture, and pasture development etc. 610 projects were sanctioned in Gujarat and 517 in Madhya Pradesh.
â€¢ Central Ground Water Authority (CGWA) has been constituted under "The Environment (Protection) Act, 1986" for the purpose of regulation and control of ground water development and management in the Country. So far, CGWA has notified 162 areas in the Country for the purpose of regulation of ground water, including four and seven in Gujarat and Madhya Pradesh respectively. Under the CGWA guidelines, in notified areas, no permission is accorded to extract ground water through any energized means for any purpose other than drinking water. However, for non-notified areas, ground water withdrawal by industries is regulated by means of guidelines/criteria as specified as CGWA.
Contd..3/-
Sl. No.
State
FY 2014-15
FY 2015-16
2016-17 as on 25/11/2016
Total Works Expenditure (Rs. In crore)
Total Works Expenditure (Rs. In crore)
Total Works Expenditure (Rs. In crore)
1
Gujarat

7024
115.85
13752
219.96
17502
277.98
2
Madhya Pradesh
138916
719.75
63518
630.30
79270
772.20
//3//
â€¢ CGWA has issued advisories to States and UTs to take measures to promote/adopt artificial recharge to ground water / rain water harvesting. 30 States/UTs, including Gujarat and Madhya Pradesh, have made rain water harvesting mandatory by enacting laws or by formulating rules & regulations or by including provisions in Building bye-laws or through suitable Government Orders.
â€¢ This Ministry has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground water legislation for its regulation and development which includes provision of rain water harvesting. Gujarat and Madhya Pradesh have initiated process to enact the Model Bill.
â€¢ CGWB has taken up Aquifer Mapping and Management programme during XII Plan, under the scheme of Ground Water Management and Regulation. The Aquifer Mapping is aimed to delineate aquifer disposition and their characterization for preparation of aquifer/area specific ground water management plans, with community participation. As on 30.6.2016, an area of 31,522 sq.km and 9,268 sq km has been covered in Gujarat and Madhya Pradesh respectively.
â€¢ CGWB had taken up Demonstrative Rain Water Harvesting and Artificial Recharge projects in 22 States of the Country, under Central Sector Scheme "Ground Water Management & Regulation". Under the scheme, 1661 demonstrative recharge structures were approved for construction in various States/UTs including 116 and 51 in Gujarat and Madhya Pradesh respectively. Out of these 116 and 51 structures, 100 and 43 structures were completed in Gujarat and Madhya Pradesh.
â€¢ MoWR, RD & GR has also launched 'Jal Kranti Abhiyan' (2015-16 to 2017-18) in order to consolidate water conservation and management in the Country through a holistic and integrated approach involving all stakeholders, making it a mass movement.
â€¢ CGWB has been organizing mass awareness programmes in the Country to promote rain water harvesting and artificial recharge to ground water; more than 17 lakh children participated in a nation-wide painting competition in the last year to promote conservation of water.
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ANNEXURE
Annexure referred in reply to Lok Sabha Unstarred Q.NO. 3850 for reply on 08.12.2016 regarding "Assessment of Ground Water Resources"
STATE-WISE GROUND WATER RESOURCES AVAILABILITY, UTILIZATION AND STAGE OF DEVELOPMENT INDIA
(As on 2011)
(in Billion Cubic Metre(bcm))
Sl. No.
States / Union Territories
Annual Replenishable Ground Water Resource
Natural Discharge during non-monsoon season
Net Annual Ground Water Availability
Annual Ground Water Draft
Stage of Ground Water Development
(%)
Irrigation
Domestic and Industrial uses
Total
States
1
Andhra Pradesh
20.7892
1.9064
18.8828
6.2694
0.7381
7.0075
37
2
Telangana
15.098
1.4138
13.6844
6.9103
0.5919
7.502
55

3
Arunachal Pradesh
4.5100
0.4500
4.0600
0.0020
0.0010
0.0030
0.08
4
Assam
28.5200
2.7300
25.7900
2.8600
0.6400
3.4900
14
5
Bihar
29.3350
2.4705
26.8645
10.2550
1.6960
11.9509
44
6
Chhattisgarh
12.4200
0.7900
11.6300
3.4300
0.6200
4.0500
35
7
Delhi
0.3105
0.0234
0.2871
0.1402
0.2519
0.3922
137
8
Goa
0.2424
0.0970
0.1454
0.0101
0.0311
0.0411
28
9
Gujarat
18.5686
0.9832
17.5854
10.7477
1.1074
11.8551
67
10
Haryana
10.7800
0.9900
9.7900
12.3500
0.7100
13.0500

133
11
Himachal Pradesh
0.5590
0.0280
0.5311
0.2506
0.1272
0.3778
71
12
Jammu & Kashmir
4.2512
0.4251
3.8261
0.1988
0.6077
0.8065
21
13
Jharkhand
6.3100
0.5500
5.7600
1.3100
0.5500
1.8600
32
14
Karnataka
17.0266
2.2154
14.8112
8.5916
0.8198
9.4114
64
15
Kerala
6.6864
0.6134
6.0730
1.3046
1.5310
2.8355
47
16
Madhya Pradesh
35.0406
1.7520
33.2886
17.4809
1.3527
18.8335
57
17
Maharashtra
33.9474
1.7955
32.1519
16.1460
1.0293
17.1754
53
18
Manipur
0.4401
0.0440
0.3961
0.0033
0.0007

0.0040
1.02
19
Meghalaya
1.7805
0.1780
1.6024
0.0015
0.0002
0.0017
0.08
20
Mizoram
0.0304
0.0030
0.0273
0.0000
0.0010
0.0010
3.52
21
Nagaland
0.6159
0.0616
0.5543
0.0000
0.0340
0.0340
6.13
22
Odisha
17.7768
1.0859
16.6909
3.8126
0.9162
4.7288
28
23
Punjab
22.5300
2.2100
20.3200
34.1700
0.7100
34.8800
172
24
Rajasthan
11.9414
1.1125
10.8290
13.1332
1.7098
14.8430
137
25
Sikkim*
-
-
0.0442
0.0027
0.0086
0.0113
26
26
Tamil Nadu
21.5326
2.1533
19.3793
13.1688

1.7638
14.9326
77
27
Tripura
2.5866
0.2286
2.3580
0.0932
0.0694
0.1626
7
28
Uttar Pradesh
77.1900
5.5300
71.6600
48.7400
4.0400
52.7800
74
29
Uttarakhand
2.0403
0.0449
1.9954
1.1033
0.0298
1.1331
57
30
West Bengal
29.2511
2.6688
26.5823
9.7195
0.9731
10.6926
40
Total (States)
432.11
34.55
397.60
222.21
22.66
244.85
62
Union Territories
1
Andaman & Nicobar
0.3080
0.0216
0.2865
0.0006
0.0121
0.0127
4.44
2
Chandigarh
0.0216
0.0022
0.0194
0.0000
0.0000
0.0000
0
3
Dadra & Nagar Haveli
0.0622
0.0031
0.0591

0.0072
0.0056
0.0129
22
4
Daman & Diu
0.0181
0.0012
0.0169
0.0145
0.0019
0.0164
97
5
Lakshadweep
0.0105
0.0070
0.0035
0.0000
0.0023
0.0023
67
6
Puducherry
0.1893
0.0190
0.1703
0.1237
0.0293
0.1530
90
Total (UTs)
0.6100
0.0500
0.5600
0.1500
0.0500
0.2000
36
Grand Total
432.7200
34.6000
398.1600
222.3600
22.7100
245.0500
62
* Note: Net ground water availability in Sikkim has been estimated based on spring discharge and is not reflected in the corresponding total annual replenishable resource. This results in a difference of 0.044 bcm in the State Total and Grand Total.